

```

EEEEEEEEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFFFFFF
EEEEEEEEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFFFFFF
EEEEEEEEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFFFFFF
EEE                      RRR                RRR      FFF
EEE                      RRR                RRR      FFF
EEE                      RRR                RRR      FFF
EEE                      RRR                RRR      FFF
EEE                      RRR                RRR      FFF
EEE                      RRR                RRR      FFF
EEEEEEEEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFFFFFF
EEEEEEEEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFFFFFF
EEEEEEEEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFFFFFF
EEE                      RRR                RRR      FFF
EEE                      RRR                RRR      FFF
EEE                      RRR                RRR      FFF
EEE                      RRR                RRR      FFF
EEE                      RRR                RRR      FFF
EEEEEEEEEEEEEEEEEEEE     RRR                RRR      FFF
EEEEEEEEEEEEEEEEEEEE     RRR                RRR      FFF
EEEEEEEEEEEEEEEEEEEE     RRR                RRR      FFF

```

[illegible]

```
IIIIII  NN  NN  IIIII  TTTTTTTTTT  RRRRRRRR  EEEEEEEEE  AAAAAA  LL
IIIIII  NN  NN  IIIII  TTTTTTTTTT  RRRRRRRR  EEEEEEEEE  AAAAAA  LL
II  NN  NN  II  TT  RR  RR  EE  AA  AA  LL
II  NN  NN  II  TT  RR  RR  EE  AA  AA  LL
II  NNNN  NN  II  TT  RR  RR  EE  AA  AA  LL
II  NNNN  NN  II  TT  RR  RR  EE  AA  AA  LL
II  NN  NN  II  TT  RRRRRRRR  EEEEEEEE  AA  AA  LL
II  NN  NN  II  TT  RRRRRRRR  EEEEEEEE  AA  AA  LL
II  NN  NNNN  II  TT  RR  RR  EE  AAAAAAAAAA  LL
II  NN  NNNN  II  TT  RR  RR  EE  AAAAAAAAAA  LL
II  NN  NN  II  TT  RR  RR  EE  AA  AA  LL
II  NN  NN  II  TT  RR  RR  EE  AA  AA  LL
IIIIII  NN  NN  IIIII  TT  RR  RR  EEEEEEEEE  AA  AA  LLLLLLLLLL
IIIIII  NN  NN  IIIII  TT  RR  RR  EEEEEEEEE  AA  AA  LLLLLLLLLL
```

```
LL  IIIII  SSSSSSSS
LL  IIIII  SSSSSSSS
LL  II  SS
LL  II  SS
LL  II  SS
LL  II  SS
LL  II  SSSSSS
LL  II  SSSSSS
LL  II  SS
LL  II  SS
LL  II  SS
LL  II  SS
LLLLLLLLLL  IIIII  SSSSSSSS
LLLLLLLLLL  IIIII  SSSSSSSS
```

Subroutine ERFRTINI (Array_addr, Array_size)

```
0001
0002
0003 C
0004 C Version: 'V04-000'
0005 C
0006 C*****
0007 C*
0008 C* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0025 C*
0026 C*
0027 C*****
0028 C
0029 C++
0030 C Author: Sharon Reynolds Creation date: 29-Mar-1983
0031 C
0032 C Functional Description:
0033 C
0034 C This module initializes data structures that contain the
0035 C device class, type, version number, and the transfer vector
0036 C offsets for the devices supported by the ERFRLTIM image.
0037 C
0038 C Modified By:
0039 C
0040 C V03-001 SAR0127 Sharon A. Reynolds, 7-Sep-1983
0041 C Added initialization of a common text area for
0042 C device registers used by both the DR750/DR780 modules.
0043 C
0044 C**
0045 C--
0046 C
0047 C
0048 C Include files
0049 C
0050 C Include 'SRC$;DR32COM.FOR /nolist'
0101
0102 !
0103 ! REALTIME DEVICE CLASS AND TYPES
0104 !
0105 C Parameter DC$_REALTIME = '00000060'X
0106
0107 C PARAMETER DT$_LPA11 = '00000001'X ! LPA-11
```

```

0108      PARAMETER DT$DR780 = '00000002'X      ! DR780
0109      PARAMETER DT$DR750 = '00000003'X      ! DR750
0110      PARAMETER DT$DR11W = '00000004'X      ! DR11W
0111      PARAMETER DT$PCL11R = '00000005'X      ! PCL11 RECEIVER (CSS)
0112      PARAMETER DT$PCL11T = '00000006'X      ! PCL11 TRANSMITTER (CSS)
0113      ! PARAMETER DT$DR11C = '00000007'X      ! DR11C PARALLEL INTERFACE
0114      PARAMETER DT$BS_DT07 = '00000008'X      ! PARALLEL INTERFACE ON DMF-32
0115      ! PARAMETER DT$XP_PCL11B = '00000009'X    ! PCL-11B (DECNET and NONDECNET mode CSS)
0116      ! PARAMETER DT$XI_DR11C = '0000000A'X    ! PARALLEL INTERFACE ON DMF-32
0117
0118      Parameter V1 = 1                          ! device module version number
0119
0120      Parameter      Maxtypes = 7
0121
0122      Integer*4      Array_addr, Array_size
0123
0124      Integer*2      Real_time_codes ( 4 * Maxtypes )
0125
0126      C
0127      C The following table consist of:
0128      C   DEVICE TYPE, DEVICE CLASS, MODULE VERSION, TRANSFER VECTOR OFFSET
0129      C
0130      C The MODULE VERSION is used to determine if the module in this image
0131      C is the one to use. This is accomplished the root image comparing
0132      C this value against the value in the master tables in the root image.
0133      C
0134      C The TRANSFER VECTOR OFFSET is the index to the transfer vector to
0135      C be used for a specific device type. For example, the transfer
0136      C vectors for the disk image are ordered as:
0137      C   INITDISK 0
0138      C   MASSDISK 1
0139      C   RKDISK   2
0140      C   RLDISK   3
0141      C   ECT.
0142
0143      Data          Real_time_codes /
0144      1 DT$LPA11,    DC$REALTIME, V1, 1,      ! LPA-11
0145      2 DT$DR780,    DC$REALTIME, V1, 2,      ! DR780
0146      3 DT$DR750,    DC$REALTIME, V1, 3,      ! DR750
0147      4 DT$DR11W,    DC$REALTIME, V1, 4,      ! DR11W
0148      5 DT$PCL11R,    DC$REALTIME, V1, 5,      ! PCL11 RECEIVER (CSS)
0149      6 DT$PCL11T,    DC$REALTIME, V1, 6,      ! PCL11 TRANSMITTER (CSS)
0150      ! 7 DT$DR11C,    DC$REALTIME, V1, 0,      ! DR11C PARALLEL INTERFACE
0151      8 DT$BS_DT07,    DC$REALTIME, V1, 7,      ! UNIBUS SWITCH
0152      ! 8 DT$XI_DR11C, DC$REALTIME, V1, 1,      ! PARALLEL INTERFACE ON DMF-32
0153      ! 9 DT$XP_PCL11B, DC$REALTIME, V1, 1,      ! PCL-11B (DECNET and NONDECNET mode CSS)
0154
0155      Array_addr = XLOC (Real_time_codes(1))
0156      Array_size = Maxtypes
0157
0158      C
0159      C Initialize the DR32 common.
0160      C
0161      V1DR_SL(0) = 'SUCCESSFUL COMPLETION*'
0162      V1DR_SL(1) = 'COMMAND STARTED*'
0163      V1DR_SL(2) = 'INVALID PTE*'
0164      V1DR_SL(3) = 'COMMAND IN*'

```

```

0165      V1DR_SL(4) = 'FAR-END DISABLE*'
0166      V1DR_SL(5) = 'SELF TEST*'
0167      V1DR_SL(6) = 'RANGE ERROR*'
0168      V1DR_SL(7) = 'UNALIGNED QUEUE ERROR*'
0169      V1DR_SL(8) = 'INVALID COMMAND PACKET*'
0170      V1DR_SL(9) = 'FREE QUEUE EMPTY*'
0171      V1DR_SL(10) = 'RANDOM ENABLE*'
0172      V1DR_SL(11) = 'INVALID DDI COMMAND*'
0173      V1DR_SL(12) = 'LENGTH ERROR*'
0174      V1DR_SL(13) = 'DRIVER ABORT*'
0175      V1DR_SL(14) = 'DDI PARITY ERROR*'
0176
0177      V2DR_SL(21) = 'NON-EXISTENT REGISTER*'
0178      V2DR_SL(22) = 'LOG FAR-END REGISTERS*'
0179      V2DR_SL(23) = 'FAR-END ERROR*'
0180
0181      V1DR_CB(1) = 'BASE VA OF COMMAND BLOCK*'
0182      V1DR_CB(2) = 'LENGTH OF COMMAND BLOCK (BYTES)*'
0183      V1DR_CB(3) = 'SVAPTE OF COMMAND BLOCK BASE VA*'
0184
0185      V1DR_BB(1) = 'BASE VA OF BUFFER BLOCK*'
0186      V1DR_BB(2) = 'LENGTH OF BUFFER BLOCK (BYTES)*'
0187      V1DR_BB(3) = 'SVAPTE OF BUFFER BLOCK BASE VA*'
0188
0189      Return
0190      End

```

PROGRAM SECTIONS

Name	Bytes	Attributes
0 \$CODE	293	PIC CON REL LCL SHR EXE RD NOWRT LONG
1 \$PDATA	472	PIC CON REL LCL SHR NOEXE RD NOWRT LONG
2 \$LOCAL	56	PIC CON REL LCL NOSHR NOEXE RD WRT LONG
3 DR32	600	PIC OVR REL GBL SHR NOEXE RD WRT LONG
Total Space Allocated	1421	

ENTRY POINTS

Address	Type	Name
0-00000000		ERFRTINI

VARIABLES

Address	Type	Name	Address	Type	Name
AP-00000004a	I*4	ARRAY_ADDR	AP-00000008a	I*4	ARRAY_SIZE

ERFRTINI

F 14
16-Sep-1984 00:04:34
5-Sep-1984 13:58:45

VAX-11 FORTRAN V3.4-56
DISK\$VMSMASTER:[ERF.SRC]INITREAL.FOR;1
Page 4

ARRAYS

Address	Type	Name	Bytes	Dimensions
2-00000000	I*2	REAL_TIME_CODES	56	(28)
3-0000019B	CHAR	V1DR_BB	93	(3)
3-000001F8	CHAR	V1DR_CB	96	(3)
3-00000000	CHAR	V1DR_SL	345	(0:14)
3-00000159	CHAR	V2DR_SL	66	(21:23)

COMMAND QUALIFIERS

FORTRAN /LIS=LIS\$:INITREAL/OBJ=OBJ\$:INITREAL MSRC\$:INITREAL

/CHECK=(NOBOUNDS,OVERFLOW,NOUNDERFLOW)

/DEBUG=(NOSYMBOLS,TRACEBACK)

/STANDARD=(NOSYNTAX,NOSOURCE FORM)

/SHOW=(NOPREPROCESSOR,NOINCLUDE,MAP)

/F77 /NOG_FLOATING /I4 /OPTIMIZE /WARNINGS /NOD_LINES /NOCROSS_REFERENCE /NOMACHINE_CODE /CONTINUATIONS=19

COMPILATION STATISTICS

Run Time: 1.68 seconds

Elapsed Time: 5.39 seconds

Page Faults: 124

Dynamic Memory: 160 pages

0149 AH-BT13A-SE
VAX/VMS V4.0

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